

Designing and Optimizing a High-Performance Curtain-Wall Façade

There are many advantages to curtain-wall façades. They are great for daylighting, external views from inside spaces, and transparency of the architectural spaces. However, these facades also come with many challenges that need to be addressed to create a high-performing building. This Wiki will serve as a hub to other spaces that describe how a high-performing façade can be designed. At this time, we will offer a few pages, but we are hoping that this page will develop over time as the BIM Wiki expands.

Façade Design is a highly iterative process. It is also a complex process with many factors, and should be given plenty of time in the design process to develop. Many of the disciplines in the design team should be involved in the process. Some definite players in this process are the mechanical engineer, lighting designer/engineer, and the architect. Some other members on the team may wish to be involved such as the construction manager to assess constructability of the façade, and the structural engineer to assess how the façade can be supported.

The following links should be used by each respective discipline to help collaborate on designing a high-performance façade:

From an Energy Use Perspective (Mechanical Engineer)

From a Daylighting Perspective (Lighting Designer/Engineer)

From a Structural Perspective (Structural Engineer)

From a Constructability Perspective (Construction Manager)

From an Architectural Perspective (Architect, Landscape Architect)